

GOLOVIN HEALTH CLINIC



ALASKA RURAL PRIMARY CARE FACILITY ASSESSMENT AND INVENTORY SURVEY REPORT

FEBRUARY 28, 2002



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1. EXECUTIVE SUMMARY

A. OVERVIEW

The purpose of this report is to document rural community health program clinic needs. Those needs have been assessed from several perspectives. This is the second stage of the planning and implementation process for improving the quality of rural primary care through capital improvements to community clinics.

The first stage was development of the "Alaska Rural Primary Care Facility Needs Assessment" dated 10/23/2000. The purpose in part of this effort was to establish base lines for the planning and implementation to follow. This second stage is to document rural community health clinic needs and conditions from several perspectives as follows:

- 1) A spatial assessment involving spaces (as-built floor plan) for comparison with pre-established Alaska Rural Primary Care Facility (ARPCF) space basis, as set forth in the ARPCF needs assessment dated 10/23/2000.
- 2) A code and condition survey of the existing facility
- 3) Identification of a site for a new facility (if applicable/decided) and the status of services to that site (road, electricity, water, sewer, etc.).
- 4) Documentation of functional inputs as communicated by local people or observed by the assessment team (Note: functional planning was a component of the needs assessment in the stage 1).
- 5) Development of options to facilitate programmatic and technical needs and deficiencies,
- 6) Costing of those options and
- 7) Recommendations as to the option or options that best address the clinic need and deficiencies¹.

ARPCF clinic basis were standards established in stage 1 based on population. They translate into three clinic sizes as follows:

Small Clinic

Population	20-100
Space Standard	1,535 gsf (heated)

Medium Clinic

Population	101-500
Space Standard	1,989 gsf (heated)

Large Clinic

Population	501+
Space Standard	2,459 gsf (heated) ²

¹ There are only four options available in any rural community as follows: 1) New Facility, 2) Existing Facility renovations and or additions, 3) limited scope renovations and/or additions – driven by committed funding from either capital or operating perspectives (this option is not costable without scope or funding definition), 4) status quo (no change) (note: any of these options can apply to combined facilities existing or envisioned.)

² The intent of the code and condition survey is to identify and cost deficiencies inclusive of spatial deficiencies. The accumulation of those costs is then intended to be compared to the cost of a new clinic. If the costs of renovations and additions exceed 75% of new construction then a new clinic option is considered viable.

Golovin has a population of 144 (2000 Census). This qualifies it for a medium size clinic of 1989 gsf. The existing facility is 1,224 gsf, resulting in a spatial deficiency of 765 gsf. The facility was upgraded in 1995. It is a residential grade wood structure on posts and treated wood pads on gravel. The overall condition of the facility is run down and spatial planning is poor, but the structure appears sound (possible exception of floor loading). This facility could be renovated and expanded, but would require complete internal demolition and renovation. A drawing "A4 Renovation and Additions Implications Floor Plan" has been provided to demonstrate one view of reuse of this structure and as a basis for assessing this option.

Key community issues and perspectives are as follows:

- Need a mental health counseling office
- Need larger, multiple offices.
- Need more storage
- The community would like a new clinic and has identified a new site. Reference drawing "A1 Existing Site Plan."

B. RENOVATION/UPGRADE AND ADDITION

This option is as previously discussed under A - Overview. Its probable impacts are diagramed in drawing A4 which is an overlay of ARPCF spaces onto the existing floor plan. The existing clinic at Golovin is deficient by 765 gross square feet. The existing space is poorly space planned and in poor condition. Although the roof structure can be expanded, its hip form is a deterrent.

Since the cost of renovation and upgrade is higher than that of a new clinic as described in this report, the consulting team recommendation is for a new clinic.

C. NEW CLINIC

This option is as cost summarized in Section A Overview. It is based on ARPCF space standards set in Stage I of this planning process and as costed under section 6 new clinic analysis of this report for a medium size clinic. The community expressed interest in a new clinic and has identified a site, reference drawing A1. The consulting team recommendation is for a new clinic in this community.

2. GENERAL INFORMATION

A. PURPOSE OF REPORT AND ASSESSMENT PROCESS

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design, and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 3 and 4. The information gathered will be tabulated and analyzed according to a asset of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was revised by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. ASSESSMENT TEAM

The survey was conducted on December 11, 2001 by Robert F. Bezek, Architect, Bezek Durst Seiser, Inc. and Charlie Chien M.E. PDC, Inc., and Donna Mears, ANTHC. ANTHC made introductions and conducted village briefings to ensure complete understanding of the inspection process. Village contacts were: Crystal Nagaruk, CHA III; Rodney W. Lewis, CHA IV; and Robert Moses, Clinic Travel Clerk. Team members who assisted in the preparation of the report from information gathered included members of the field team above and Robert Bezek, Bezek Durst Seiser, Inc., and Charlie Chien M.E. PDC, Inc.

C. REPORT FORMAT

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to building code compliance, general facility condition, and spatial deficiencies. The written report includes these evaluations, in addition to sketches of building construction details and identification of potential sites (where available) for a new clinic. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. SITE INVESTIGATION

On December 11, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately three hours was spent on site, with sufficient time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview available staff to gather limited input.

3. CLINIC INSPECTION SUMMARY

A. COMMUNITY INFORMATION

Population:

- ◆ 144 (2000 Census)
- ◆ 2nd Class City, Unorganized Borough, Bering Straits School District, Bering Straits Native Corp.

Location: Golovin is located on a point of land between Golovin Bay and Golovin Lagoon on the Seward Peninsula. It is 70 miles east of Nome. It lies at approximately 64d 33m N Latitude, 163d 02m W Longitude. (Sec. 11, T011S, R022W, Kateel River Meridian.) Golovin is located in the Cape Nome Recording District. The area encompasses 3.7 sq. miles of land and 0 sq. miles of water.

History: The Eskimo village of "Chinik," located at the present site of Golovin, was originally settled by the Kauweramiut Eskimos who later mixed with the Unaligmiut Eskimos. Golovin was named for Captain Vasili Golovin of the Russian Navy. In 1887, the Mission Covenant of Sweden established a church and school south of the current site. Around 1890, John Dexter established a trading post that became the center for prospecting information for the entire Seward Peninsula. When gold was discovered in 1898 at Council, Golovin became a supply point for the gold fields. Supplies were shipped from Golovin across Golovin Lagoon and up the Fish and Niukluk Rivers to Council. A post office was opened in 1899. Reindeer herding was an integral part of the missions in the area in the 1900s. The City was incorporated in 1971.

Culture: Golovin is an Eskimo village with a fishing, herding, and subsistence lifestyle. The sale or importation of alcohol is banned in the village.

Economy: The Golovin economy is based on subsistence activities, reindeer herding, fish processing and commercial fishing. 14 residents hold commercial fishing permits. The salmon fishery and reindeer herding offer some potential for cash income to augment subsistence food harvests. Fish, beluga whale, seal, moose and reindeer are the main sources of meat.

Facilities: The City is beginning development of a community-wide piped water and sewer system. Water is pumped from Chinik Creek, is treated and stored in three large tanks. Approximately 50% of households are plumbed. 28 homes currently have water delivered by truck, 27 haul their own water, and 13 collect rainwater during the summer. 10 homes with septic tanks have experienced drainfield failures, 25 households use honey buckets and 21 homes use pit privies. A new 1.2-million-gallon water tank has been constructed. The landfill has been upgraded and permitted as a class "C" landfill. A new washeteria is also needed.

Transportation: Since there are no roads connecting the city with other areas, access to Golovin is limited to air and sea. Both scheduled and chartered flights are available from Nome. The airport was recently relocated, and a new State-owned airport with a 4,000' gravel runway is available. There is no dock; supplies are lightered from Nome and offloaded on the beach. A cargo ship brings supplies once each summer to Golovin. The City has requested funds for a small boat harbor feasibility study.

Climate: Marine climatic influences prevail during the summer when the sea is ice-free. Summer temperatures average 40 to 60; winter temperatures average -2 to 19. Extremes from -40 to 80 have been recorded. Average annual precipitation is 19 inches, with 40 inches of snowfall. Golovin Bay is frozen from early November to mid-May.

B. GENERAL CLINIC INFORMATION

1) Physical Plant Information

The existing Golovin clinic is 1,224 gsf. It's a residential³, wood frame building with low-grade residential casework; vinyl tile floors except in the office, which has carpet. It meets no handicap standards. Throughout the facility, it has oversized 4 foot, 0 inch doors with no handicap clearances, both in the arctic entry and the two exam spaces. The bathroom's extremely small and meets no handicap standards. The facility is extremely congested.

2) Community Program Sheet

Attached at the end of this section is the Community Program Sheet completed by the City of Golovin.

³ The use of the term residential has the following assumed meanings:

Structural – residential live loads usually range from 20 to 40 psf. The minimum live loads for clinics should be 50 psf in the office areas. For computer use areas the load can be as much as 100 psf. Operating rooms and laboratories are generally designed with a live load of 60 psf. With the village clinics being relatively small, I would probably design the entire floor system at 60 psf with the exception of the record keeping area. This area should be designed for a minimum of 100 psf.

C. PROGRAM DEFICIENCY NARRATIVE

1) Space Requirements and Deficiencies

SPACE COMPARISON MATRIX

Current Golovin Actual SF to Denali Commission Medium Clinic

Alaska Rural Primary Care Facility

Purpose / Activity	Designated Itinerant	Current Clinic			Medium Clinic			Difference		
		Size	No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)
Arctic Entries			24	1	24	50	2	100		-76
Waiting/Recep/Closet			212	1	212	150	1	150		62
Trauma/Telemed/Exam			176	1	176	200	1	200		-24
Office/Exam			0	0	0	150	1	150		-150
Admin./Records			174	1	174	110	1	110		64
Pharmacy/Lab			0	0	0	80	1	80		-80
Portable X-ray			0	0	0			0		0
Specialty Clinic/Health Ed/Conf.			220	1	220	150	1	150		70
Patient Holding/Sleeping Room			87	1	87	80	1	80		7
Storage (Storage & Meds)			82	1	82	100	1	100		-18
HC Toilet			34	1	34	60	2	120		-86
Janitor's Closet (Janitor/Tub)			62	1	62	30	1	30		32
								0		0
								0		0
Subtotal Net Area					1071			1270		-199
Circulation & Net/Gross Conv. @45%					95			572		-477
Subtotal (GSF)					1166			1842		676
Mechanical Space @ 8%					54			147		-93
Total Heated Space					1220			1989		-769
Morgue (unheated enclosed space)			0	0	30	1	30			-30
Ext. Ramps, Stairs, Loading	HC Accessible			As Required		As Required			As Required	

a. Overall Space Deficiencies: The overall space deficiency is 769 gsf.

- b. Specific Room Deficiencies: Specific deficiencies are: arctic entry; accessibility to trauma room; office exam space; pharmacy lab; and handicap accessible restrooms.
- c. Other Size Issues: None.

2) Building Issues

- a. Arctic Entries: There is one arctic entry with no ADA provisions whatsoever. It is 4 foot, 1 inch wide with 4-foot doors in and out.
- b. Waiting / Reception: There is no formal waiting/reception area. There are 7 small chairs lined up in a hallway.
- c. Exam / Trauma: There is one exam/trauma room available. Casework in this room is painted plywood. The door is a four-foot door, leaving no side clearance for handicap accessibility. It would not be required to be a four-foot door.
- d. Exam Room: Similar to trauma room. It has a four-foot door. It is actually used for specialty clinic/exam. It has a dental chair and it is extremely jammed with equipment, so that there's little space left to function in the exam room.
- e. Office / Administration / Records: The water storage tank takes up part of this room. It's extremely congested with two desks.
- f. Pharmacy / Lab: Limited. There is a room called storage that has a 3-foot by 18-inch deep cabinet that has medications in it. The room is also jammed with gurneys and office and administrative storage items. It does have a refrigerator, but it does not have a sink.
- g. Specialty Clinic / Health Education / Conference: The second exam room has some specialty clinic equipment in it but is not functional for these purposes.
- h. Patient Holding / Sleeping Room: There is an itinerant room, very congested with storage. It really could not be used for patient holding.
- i. Storage: Same as medications.
- j. HC Toilet Facilities: None.
- k. Janitors Room: An enlarged hallway leads to the mechanical room and houses a service sink and tub with shower.
- l. Mechanical/Boiler Room: This room looks like it was added on. It is also used for storage. The door has never been completed in installation. It has no hardware, though it is a rated door.
- m. Ancillary Rooms: There is none.

3) Functional Design Issues

Although on temporary foundations, this facility appears to be structurally sound. However, it is spatially deficient by 765 gsf. The extent of renovations and additions to meet ARPC standards combined with a need for a permanent site and foundations place the economics on the side of a replacement facility.

4) Health Program Issues

- a. Patient comfort and privacy: There is very little. The clinic's very tiny. Since the waiting area is just outside the exam room doors, there is very little privacy.
- b. Medical/Infectious Waste: Medical/infectious waste is shipped to Norton Sound Health Corporation in Nome for disposal.
- c. Infection Control: Poor quality finishes in the facility do not provide sufficient infection control.
- d. Insect and Rodent Control: No problems.
- e. Housekeeping: Difficult due to the lack of storage and a good janitors room. The facility is cleaned daily and spot cleanups are completed as needed throughout the day.

5) Utilities

- a. Water Supply: Trucked in water, water storage tank is in the office on-site.
- b. Sewage Disposal: On-site septic system, two-and-a-half years old, works fine.
- c. Electricity: Overhead lines.
- d. Telephone: Overhead lines.
- e. Fuel Oil: Yes.

D. ARCHITECTURAL / STRUCTURAL CONDITION

1) Building Construction

- a. Floor Construction: Floors appear to be 2X10's or 2X12's. Due to the vinyl tile, it is assumed that there's an underlayment over plywood sheathing. The underside of the structure is plywood soffitted, so the structure is not visible. Structure is supported on a series of glue-lam beams, posts, and pads; treated wood on a gravel pad.
- b. Exterior Wall Construction: Appears to be 2X6 construction with stud spacing 16 to 24 inches, on center. Siding is beveled wood, it is assumed that there is sheathing underneath it. Interior walls are gypsum board.
- c. Roof Construction: The roof is a hipped roof with lumberyard-type, gang nail trusses. 2X6 upper and lower cords. Gypsum board over the top of flat trusses, stepped down for roof slope. Batt insulation is 12 inches which is equivalent to R-38.
- d. Exterior Doors: Hollow metal in wood frames with panic hardware.
- e. Exterior Windows: Wood casement-type.
- f. Exterior Decks, Stairs, and Ramps: Wood framed with grip strut metal planks.

2) Interior Construction

- a. Flooring: Vinyl tile, except the office, which is carpet.
- b. Walls: Mostly 2X4 construction with gypsum board and paint.
- c. Ceilings: Gypsum board over roof trusses with paint.
- d. Interior doors: Appear to be solid core.
- e. Casework: Low-grade, residential casework, in poor shape, or painted plywood.
- f. Furnishings: Very old and worn.
- g. Insulation: Floor insulation assumed R-38. Wall insulation assumed R-19. Attic/roof insulation is R-38. There is no attic ventilation at eaves and there are no gables. There is a light frost at the eaves of the roof as observed in the attic.
- h. Tightness of Construction: The facility is tightly constructed.
- i. Arctic Design: The facility foundations and enclosure appear to practice good arctic design.

3) Structural

- a. Foundations: Series of posts, pads, beams and joist with plywood soffit, appears to be a quality contractor installation.
- b. Walls and Roof: Walls 2X6 construction and roof lumberyard trusses. There is no cracking or settlement. Everything appears to be structurally sound.
- c. Stairs, Landings, and Ramps: Similarly these elements appear to be in structurally sound condition, but meet no handicap standards.

E. MECHANICAL CONDITION

1) Heating System

- a. Fuel Storage and Distribution: An above ground single wall 500 gallon capacity heating fuel oil storage tank installed on a steel stand serves the clinic building heating boiler. The distance between the fuel tank and the building is less than the required distance of 5 feet.
- b. Boiler: An oil-fired 88,000 Btuh capacity hydronic boiler serves as the building heat generation system. The heat generation system appears to be in good condition.
- c. Heat Distribution System: The building is equipped with a hydronic finned tube heating system distributed throughout the building. The heating distribution piping is uninsulated in the boiler room and suspected to be also uninsulated in the concealed spaces. The overall system appears to be in good condition.

2) Ventilation System

- a. System: The building is not equipped with mechanical ventilation system. The code required ventilation is satisfied by the fact that most spaces are equipped with operable windows.
- b. Exhaust Air: Local exhaust systems using small ceiling mounted exhaust fans are installed in the Janitor's Closet and the Restroom. Provisions for kitchen hood exhaust is also provided in the kitchen area located in the specialty clinic exam room.

3) Plumbing System

- a. Water System: The building is served by the piped water supply system. Water supply system includes a local storage tank and pressure booster system located in the office area. The system appears to be in good condition.
- b. Sewer System: The building sanitary waste system discharges to a nearby leach field. The system appears to be in good condition.
- c. Fixtures: The fixtures observed at this building are in good condition but the restroom, laboratory, and clinical exam room fixtures do not conform to acceptable American Disability Act access and general patient care requirements.

F. ELECTRICAL CONDITION

1) Electrical Service

- a. The electrical service for this clinic is a 200 amp 120/240 volt AC single phase three wire system.
- b. The overhead service drop conductors are routed to the meter/disconnect above the roof through an unsupported mast. It is recommended to guy the mast to prevent undue stress on the equipment and conductors.
- c. The installed service equipment is located near the roof/soffit. Service equipment must be readily accessible, per NEC 230-70a.

2) Power Distribution

- a. The feeder to the Main Distribution Panel (MDP) consists of three # 2/0 aluminum conductors and is undersized for a 200 amp feeder per National Electric Code (NEC) 310-15 and Table 310-16.
- b. The clinic MDP is a 40 circuit Square D panelboard and currently has 5 spare circuit breaker spaces.
- c. Material is stored in front of the MDP and should be removed to provide the NEC required access clearance.

3) Grounding System

- a. The electrical system appears to have a single ground rod. It was not determined if the system is grounded to the building waterline and interior metal piping.

4) Exterior Elements

- a. The clinic does not have exterior general use receptacles. The lack of exterior receptacles usually forces extension cords to be plugged in inside the building and routed through doorways, which is a violation of NEC Article 400.
- b. It is recommended to install individual branch circuits and GFCI protected receptacles for automotive block heaters, commonly known as head bolt heaters.
- c. The exterior lighting is provided by light fixtures mounted to the wall adjacent to the entry door. The exterior lights were not operational at the time of the site visit.

5) Electrical devices and lighting

- a. Duplex receptacles are the grounding type.
- b. The total number of receptacles does not appear sufficient for the equipment and loads in place in the clinic
- c. Lighting fixtures throughout the clinic were predominantly 4' surface mounted fluorescent fixtures with wrap around lenses. Numerous light fixtures are not operational. Occupants noted short lamp life in many of the fixtures.
- d. The wiring in the clinic is primarily non-metallic sheathed cable (NM). Health Care Facilities are required to have all receptacles and fixed electric equipment, in patient care areas, supplied by circuits in grounded metal raceways with an insulated grounding conductor.

6) Emergency System

- a. The installed exit signs were not operational. Where exit lighting is required by the building code, the exit lighting shall be powered and provide minimum foot candle levels, per IBC Section 1003. Branch circuits for exit lighting shall comply with NEC 700-12.
- b. The installed emergency lights are not working. Where emergency/egress lighting is required by building codes, the emergency lighting shall be powered and provide minimum foot candle levels, per IBC Section 1003. Branch circuits for exit lighting shall comply with NEC 700-12.

7) Fire Alarm System

- a. Two residential type smoke detectors have been installed Fire alarm systems, where required by building codes must comply with the provisions of NFPA 72 (National Fire Alarm Code), NEC article 725 and the IBC Section 907.

8) Telecommunication

- a. The Data Telecommunications system currently provides service to the telephone system and the "Telemed" remote diagnostic system.
- b. A wall mounted data cabinet is located on the wall in the office.
- c. The number of data and telephone outlets is not sufficient for the clinic's current and future needs.

G. CIVIL / UTILITY CONDITION

1) Location of Building

- a. Patient Access: Clinic is located centrally in the community.
- b. Service Access: Good.
- c. Other Considerations: None.

2) Site Issues

- a. Drainage: Good gravel.
- b. Snow: No apparent snow issues. The underside of the building is an open wind sweep design.

3) Proximity of Adjacent Buildings

- a. Close to the VPSO and Youth Center.

4) Utilities

- a. Water Supply: Truck haul with water storage tank in office.
- b. Sewage Disposal: Septic system, approximately two-and-a-half years old.
- c. Electricity: Overhead lines.
- d. Telephone: Overhead lines.

H. EXISTING FACILITY FLOOR PLAN (SITE PLAN IF AVAILABLE):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

- A1 Existing Site Plan
- A2 Existing Facility Floor Plan
- A3 Existing Typical Wall Section
- A4 Addition to Existing Facility Floor Plan
- A5 Medium Clinic Floor Plan

4. DEFICIENCY EVALUATION

A. DEFICIENCY CODES:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Patient Care: Based on assessment of the facilities ability to support the stated services that are required to be provided at the site. Items required for the patients social environment such as storage, privacy, sensitivity to age or developmental levels, clinical needs, public telephones and furnishings for patient privacy and comfort.

02 Fire and Life Safety: These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated life safety aspects of building codes including the Uniform Building Code, International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code. Deficiencies could include inadequacies in fire barriers, smoke barriers, capacity and means of egress, door ratings, safe harbor, and fire protection equipment not covered in other deficiency codes.

03 General Safety: These deficiencies identify miscellaneous safety issues. These are items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices. Corrective actions required from lack of established health care industry safety practices, and local governing body code safety requirements. I.e. Occupational Safety Health Administration (OSHA) codes & standards.

04 Environmental Quality: Deficiencies based on Federal, State and Local environmental laws and regulations and industry acceptable practices. For example this addresses DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are deficiencies that show up as variations from space guidelines evaluated through industry practices and observation at the facility site and documented in the facility floor plans. These are items that are required for the delivery of medical services model currently accepted for rural Alaska. This may include space modification requirements, workflow pattern improvements, functional needs, modification or re-alignment of existing space or other items to meet the delivery of quality medical services. (Account for new space additions in DC 06 below)

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be shown or delineated in the Alaska Primary Care Facility Space Guideline. Program modifications requiring additional supportable space directly related to an expanded program, personnel or equipment shall be identified in this section; for example additional dental space,

specialty clinic, storage, or program support space that requires additional space beyond the established program.

07 Disability Access Deficiencies: The items with this category listing are not in compliance with the Americans with Disabilities Act. This could include non-compliance with accessibility in parking, entrances, toilets, drinking fountains, elevators, telephones, fire alarm, egress and exit access ways, etc.

08 Energy Management: These deficiencies address the efficiency of lighting, heating systems/fuel types and the thermal enclosures of buildings, processes, and are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient operational and facilities management and maintenance tasks of the physical plant.

10 Architectural M&R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural Deficiencies: These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.

12 Mechanical Deficiencies: These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems, interior mechanical utilities, requiring maintenance due to normal wear and tear that would result in system failure.

13 Electrical Deficiencies: These are deficiencies with normal or emergency power, electrical generating and distribution systems, interior electrical and communications utilities, fire alarm systems, power systems and communications systems within a building that should be repaired or replaced on a recurring basis due to normal wear and tear that would otherwise result in system failure.

14 Utilities M&R: This category is used for site utilities for incoming services to facilities that are required for the building to be fully operational. Deficiencies may include sewer and water lines, water wells, water tanks, natural gas and propane storage, electric power and telecommunications distribution, etc.

15 Grounds M&R: Real property grounds components that should be replaced on a recurring basis due to normal wear and tear. Deficiencies with respect to trees, sod, soil erosion, lawn sprinklers, parking, bridges, pedestrian crossings, fences, sidewalks & roadways, and site illumination etc. are considerations.

16 Painting M&R: Any painting project that is large enough to require outside contractors or coordination with other programs.

17 Roof M&R: Deficiencies in roofing, and related systems including openings and drainage.

18 Seismic Mitigation: Deficiencies in seismic structural items or other related issues to seismic design, including material improperly anchored to withstand current seismic requirements effect. The elements under consideration should include the cost incidental to the structural work like architectural and finishes demolition and repairs.

B. PHOTOGRAPHS

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. COST ESTIMATE GENERAL PROVISIONS

1) New Clinic Construction

- a. Base Cost: The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.
 - General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.
 - The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.
- b. Project Cost Factors
 - Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
 - Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Estimated Total Project Cost of New Building: This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2) Remodel, Renovations, and Additions

- a. Base Cost: The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.
 - The cost of Additions to clinics is estimated at a unit cost higher than new clinics due to the complexities of tying into the existing structures.
 - Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.
- b. General Requirements Factor: General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Contingency for Design Unknowns (Estimating Contingency): The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

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- e. Estimated Total Cost: This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.
- f. Project Cost Factors: Similar to new clinics, the following project factors have been included in Section VI of this report.
- Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
 - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- g. Estimated Total Project Cost of Remodel/Addition: This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

5. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

6. NEW CLINIC ANALYSIS

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for a village of 144 people (2000 Census). We have also determined the cost of Repair/Renovation & Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 1,989 SF Medium Clinic in Golovin is projected to be:

▪ Base Anchorage Construction Cost per s.f.		\$183
▪ Project Cost Factor:	@ 45%	\$ 82
Medical Equipment	17%	
Construction Contingency	10%	
Design Fees	10%	
Construction Administration	8%	
▪ Multiplier for Village	@ 1.712	\$ 189
Adjusted Cost per SF		\$ 454
<hr/>		
Projected Cost of a New Clinic:	1,989 s.f. x \$454	= \$903,006
(not inclusive of site development costs)		

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

▪ Code & Condition Repairs/Renovations		
Cost from Deficiency Summary		\$333,824
▪ Remodel/Upgrade work (See Def. Code 01)		
100% of clinic 1,224 SF = 1,224 SF @ \$138/SF		\$169,339
▪ Additional Space Required by ARPCF (See Def. Code 06)		
○ Base Anchorage Cost		\$226
Medical Equipment		\$ 32
Additional Costs –		\$ 98
General Requirements	20%	
Estimation Contingency	15%	
○ Multiplier for Village	@1.712	\$253
Adjusted Cost per SF		\$609
Total Addition Cost of 765 SF @ \$609		\$465,628

Projected Cost Factor	@28%	\$271,261
Construction Contingency	10%	
Construction Administration	8%	
Design Fees	10%	

Total Cost of remodel/addition	\$1,240,052
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C. Comparison of Existing Clinic Renovation /Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$$\mathbf{\$1,240,052 / \$903,006 = 1.37 \times \text{cost of New Clinic}}$$

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

D. Overall Project Cost Analysis:

The overall project cost analysis below incorporates land, multi-use, utility costs, and road access costs, and project management fees if any are associated with the project.

Item	Quantity	Units	Unit Cost	Area Adjustment Factor	Total Cost	Allowable under "Small" Clinic Process (yes/no)
Primary Care Clinic (Allowable)	1,989	SF	\$265.00	1.712	\$903,006	yes
Clinic (Non-allowable portion)	0	SF	\$265.64	1.712	\$0	no
Land	15,000	SF	\$2.00	1	\$30,000	yes
Multi-Use Facility Design Cost	0	LS	\$0.00	1	\$0	yes
Multi-Use Facility Construction Cost	0	LS	\$0.00	1	\$0	no
Utility Extension/Improvements	1	LS	\$15,000	1	\$15,000	yes
Road access & parking lot improvements	1	LS	\$5,000	1	<u>\$5,000</u>	yes
Subtotal Project Cost					\$953,006	
Project Management Fees					<u>Unknown</u>	
Total Project Cost					Unknown	

7. CONCLUSIONS AND RECOMMENDATIONS

The existing clinic at Golovin is deficient by 765 gsf. The existing space has poor space planning and is in poor condition. Although the roof structure can be expanded, its hip form is a deterrent.

The ratio of renovation and addition costs to new construction is 1.37. The consulting team recommendation is for a new clinic. The community expressed an interest in a new clinic and has identified a site, reference drawing A1.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.

Appendix B: Reference Photographs